

HANDOUT 9.8 — SOME SIGNS OF OVERFISHING

1. Change in species being caught with same method

Increasing incidence of “trash fish” (less valuable fish)

Increasing incidence of squid

Decreasing incidence of targeted species (groupers, snappers, breams, flatfish, etc.)

Decreasing incidence of specialty species (stingrays, manta rays, sharks, etc.)

2. Change in average size of fish

Large-backed fish such as jacks and groupers are less than 20 cm

Most fish are smaller than mature size

Note: Requires a consistent measurement of fish sizes over time.

3. Change in total fish catch

Decrease in catch determined by comparing catches over a time series that includes at least a 10-year time span, using formal or informal data sets of catch records.

4. Change in catch-per-unit-effort (CPUE)

Greater effort (more boats, more tonnage, etc.) results in same or smaller catch

Calculate by first determining an appropriate measure of effort (number of fishers, number or tonnage or horsepower of boats, time spent, etc.); then compute CPUE by dividing total fish catch by the measure of effort. Compare past & present data with the same fishing area or other areas

5. Decline in average income of fishers

Compare average income over time after accounting for price changes

6. More boats not going out to fish or not used as frequently

7. More fishers in area, due to lack of employment or migration to area

8. Absence of seabirds hunting for schools of fish

This is not a complete list. A specific area and fishery may have additional signs of overfishing, often known by the local fisher people.